



The Institution of Engineers, Malaysia

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Talk on:

BEM Approved CPD/PDP Hours: 2
Ref No: IEM14/HQ/112/T

“Introduction to Terrestrial Laser Scanning (TLS) and use of Unmanned Aerial Vehicle (Drone)for Infrastructure Projects”

(Organised by the Highway and Transportation Engineering Technical Division, IEM)

Date : 24th April 2014 (Thursday)

Time : 5.30 pm (Refreshments will be served at 5.00 pm)

Venue : Auditorium, Tan Sri Prof Chin Fung Kee, 3rd Floor, Wisma IEM, Petaling Jaya

Speaker : Mr. Wong Yew Soon and Sr. Lai Jiun Shyong

SYNOPSIS

The use of 3D Terrestrial Laser Scanning (TLS) technology provides many advantages and benefits for the surveying, mapping and monitoring works of the infrastructure project sites. The high resolution 3D data set (called “points cloud”) captured at sites allowed detailed site evaluation and investigation work to be performed at the comfort of the office. The point cloud itself is an accurate 3 dimension historical record of the project sites at the time of data capture. This method is fast and safe (i.e. remote sensing eliminates staff access to dangerous or inaccessible areas). The result is highly visualizable and hence reliable and useful. All traditional topographical output such as digital terrain model, ground spot levels, contour lines, features maps (tracks, structure outlines etc) can be extracted from the point cloud and provided in DWG files or any other pre agreed industry standard file format.

Information can also be extracted or measured from complex structures such as bridges or other infrastructures very easily after the scanning works.

UAV (unmanned aerial vehicles), aka drone, is an unmanned aircraft which can fly autonomously (i.e. without a human in control). A lightweight UAV combines with a compact digital camera and powerful processing software can be used to effectively capture and map a small to medium-sized project site. The final results which include High Resolution Aerial Ortho Images and Digital Elevation Model could be delivered quite speedily.

BIODATA OF SPEAKER

Mr. Wong Yew Soon is Senior Vice President of Jurukur Perunding Services Sdn Bhd responsible for the running of spatial solution department and operationalization of selected new technologies. He has more than 28 years of experience in digital photogrammetric processing works with Jurukur Perunding. He graduated with Bachelor of Surveying (Land) (1st Class Hons), University of Technology Malaysia in 1986 and had obtained Post Graduate Diploma (with distinction) in Production Photogrammetry at International Institute for Aerospace & Earth Sciences, The Netherlands in 1993. He is a member of Institution of Surveyors Malaysia.

Mr. Lai Jiun Shyong is Senior Technology Officer of Jurukur Perunding Services Sdn Bhd responsible for the TLS, UAV, GIS, etc. He is a Licensed Land Surveyor with more than 29 years of experience in conducting land surveying jobs and software programming works with Jurukur Perunding. He graduated with Bachelor of Surveying (Land) (Hons), University of Technology Malaysia in 1985 and had obtained Certificate in Remote Sensing from Asian Institute of Technology and Certificate in Hydrography from ISM/CIDA. He is a member professional bodies such as Institution of Surveyors Malaysia, Malaysian National Computer Confederation, Malaysian Association of Authorised Land Surveyors and Malaysian Remote Sensing Society.

Ir. Chin Kar Keong

Chairman 2013/2014, Highway & Transportation Engineering Technical Division, IEM

CPD HOURS CONFIRMATION

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3. Limited seats are available on a "first come first served" basis (maximum 110 participants).
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